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ABSTRACT

A national review of TAFE (Technical and Further Education) teacher preparation and development identified the skills and competencies that will be required of full-time TAFE teachers in the 1990s and those held by present full-time TAFE teachers in Australia. A questionnaire received 594 responses (a 50% response rate). Teachers reported their perceptions regarding their skills in seven categories: teaching; curriculum development; determining clients needs and industrial liaison; management/administration; updating own subject; workplace context; and general personal qualities. A two-stage Delphi survey of experts identified teacher skills and competencies for the 1990s. Results from all research techniques indicated that teaching-related skills featured very prominently but that the gap between present and future required skills was small. Curriculum development areas identified as becoming prominent were those that showed large skill shortfalls. The gap between future requirements and current expertise in determining client needs and industry liaison was the largest among the seven categories of skills. Teachers undertook considerable administrative tasks and expected this area to require a higher level of skills. Updating vocational and practical expertise was a high priority for TAFE teachers. The extent and importance of workplace-related knowledge was emphasized. The category of personal qualities showed not only the highest perceived level of current skills but also the highest level of required skills for the 1990s. (YLB)

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national review of TAFE teacher preparation and development: discussion paper

a project funded jointly by the Commonwealth Department of Employment, Education and Training and the State and Territory TAFE agencies

This discussion paper summarises Stages 1A and 1B of the National Review of TAFE Teacher Preparation and Development. It also introduces Stages 2A and 2B.

A longer research report and a literature review are available from the project researchers:

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TERMS OF REFERENCE

The (summarised) terms of reference of the review are:

Stage 1A: To identify the skills and competencies which will be required by full-time TAFE teachers in the 1990s, having regard to the need for an appropriate balance between (a) teaching (and related) skills, (b) vocational specialisation, (c) management skills, (d) skills relevant to TAFE's broader role as an educational service provider;

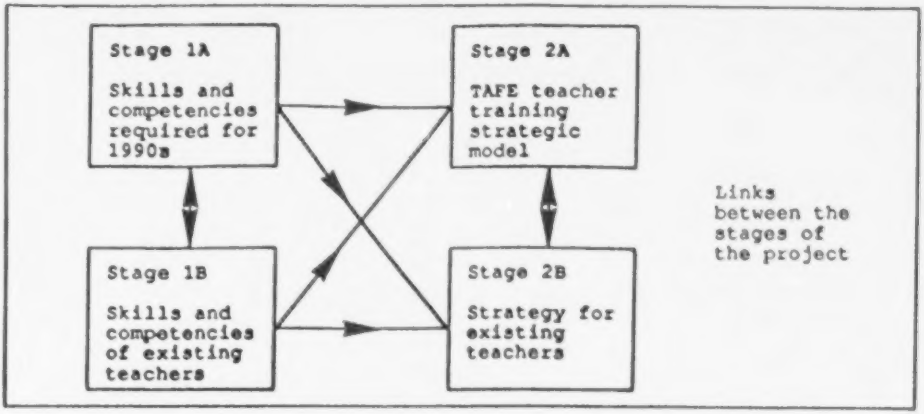
Stage 1B: To identify the skills and competencies held by present full-time TAFE teachers;

Stage 2A: To develop strategic models for TAFE teacher training and development, which integrate initial training and later retraining/development;

Stage 2B: To develop a strategy to equip teachers with the enhanced skills they require.

SOME BACKGROUND

The initiative for the national review of TAFE full-time teacher preparation and development came from the Australian Conference of TAFE Directors (ACTD). The project was jointly funded by the Commonwealth Department of Employment, Education and Training and by State and Territory TAFE agencies. The terms of reference are shown opposite. The diagram shows the links between the stages.


Stage 1A
Skills and competencies required for 1990s
Stage 2A
TAFE teacher training strategic model
Stage 1B
Skills and competencies of existing teachers
Stage 2B
Strategy for existing teachers
Links between the stages of the project

The review was timely because TAFE is recognised by governments as having a central role in Australia's vocational training arrangements. As with any educational provider, TAFE's major resource is its teachers. If TAFE is to respond appropriately to the challenges flowing from industry restructuring, it is necessary to ensure that newly appointed teaching staff are appropriately equipped, and present teaching staff expand their professional and vocational skill competencies.

Industry restructuring will affect TAFE teachers in two main inter-related ways. First, the teaching profession itself will change (hence the need for this project). Second, TAFE teachers will be providing support to industry and commerce in their attempts to tackle restructuring issues. Industry restructuring has produced greater emphasis on quality and flexibility and these, in turn, have produced integrated types of work organisation.

A variety of techniques is being used in the project. A questionnaire surveyed teachers, and pages 3 - 7 summarise the results. A two stage Delphi survey involved a group of experts and it was used to identify teacher skills and competencies for the 1990s. The results are summarised on pages 7 - 9. Submissions based on the terms of reference were invited through advertisements and correspondence. The literature was reviewed and key policy documents and reports examined. Interviews were conducted with a range of individuals and groups.

Two group techniques are being used in the project's second stage: a two

day search conference (at two different centres) and a force field analysis (at all major centres). These will be attended by all main interest groups. The force field analysis will consider a range of possible approaches to TAFE teacher preparation and development.

Skills required by full-time TAFE teachers were classified under seven headings:

- teaching;
- curriculum development;
- determining clients needs and industrial liaison;
- management/administration;
- updating own subject;
- workplace context (e.g. college, TAFE, society);
- general personal qualities.

The project's terms of reference limited research to full-time TAFE teachers, although its relevance to part-time teachers is recognised. Full-time teachers account for 65% of total TAFE teaching hours.

A summary of the results now follows. In all:

- 25 submissions were received;
- 81 people were interviewd;
- 59 people (48%) returned the Delphi Round Two Survey;
- 594 questionnaires were returned (50.4% overall return rate; net usable response rate of 46.1%);
- recent literature (primarily since 1987) was reviewed.

The response rates were generally satisfactory. The general picture that emerged can be summarised as follows:

- almost all of TAFE teachers reported a formal teaching qualification (certificate, diploma or graduate diploma);
- whether they are beginning or experienced, teachers are expected to possess and use a very wide range of skills;
- the changing vocational education environment is a persistent theme, with implications especially for teaching methodologies and contact with industry;
- when current skills are compared with skills deemed necessary for

the future, the largest gaps occur in client need/industry liaison, updating own subject and curriculum development;

- there are marked similarities in skill profiles and trends between states/territories;

- responses across research techniques consistently described current levels of skill as less than the level required by TAFE teachers in the 1990s.

The main findings for each category of skill, taking into account all the research instruments, were:

- teachers see themselves as highly skilled in traditional teaching roles (such as interpreting the syllabus, lesson planning, writing lesson objectives and presenting theory lessons). In the future, however, responses show they will need more skills in alternative, more flexible teaching strategies. Teaching was identified as a potential area of specialisation;

- respondents identified a shortfall between current skills in curriculum development and those required by teachers in the 1990s. Differences occurred, however, on the degree of expertise most teachers will require;

- strongly held view emerged from some respondents on the need for teachers to acquire a wide range of skills in responses to a new relationship with industry. Other respondents (notably the TAFE Teacher Survey) indicated that an increased level of skill was required in working with industry, but not of the same order of magnitude or priority as suggested elsewhere;

- with regard to management/administration skills, there was a small but important gap in the current level of skills, and the level deemed necessary for the 1990s. Experienced teachers were regarded as needing a range of specialised or advanced skills in this area. Several broadly-based skills, however, were seen as important for all teachers;

- a priority on teachers updating their vocational speciality emerged from all research instruments. In practice, the results nonetheless, indicated a considerable gap between the skills teachers have currently in this regard and those they believe they require in the next decade;

- knowledge of the TAFE workplace and its broader context (workplace context) - was accorded varying degrees of importance across the research techniques;

- general personal skills (e.g. communications skills) were not only identified by teachers as their highest level of current expertise, but

as their highest skill requirement in the 1990s;

- the use of a range of research instruments generally provided reinforcement, but on occasions an alternative perspective in the results;

Now let's look at some of the results in more detail.

NATIONAL TEACHER SURVEY

The gender breakdown is shown in Figure 1. Of the 543 respondents, 375 were male and 165 female (3 no response).

FIGURE 1: GENDER DISTRIBUTION

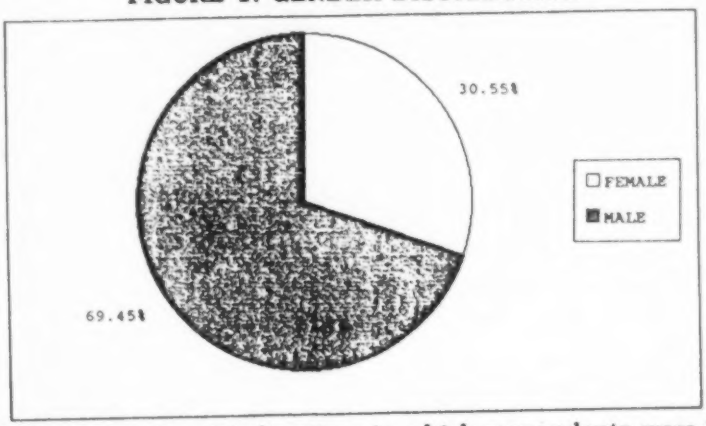
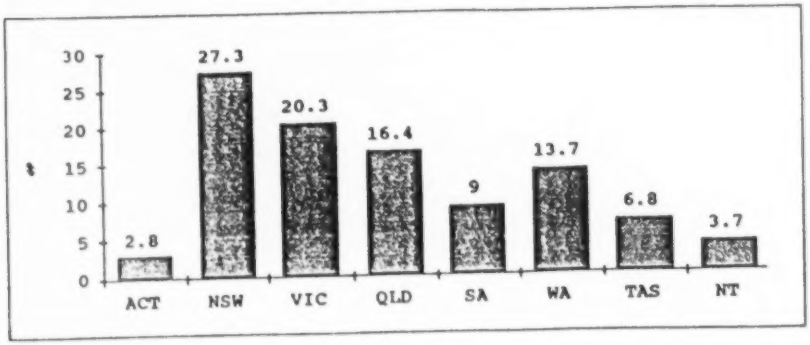


Figure 2 illustrates the state/territory in which respondents were located. The number of questionnaires distributed to each state and territory was based upon a percentage of the number of full-time teachers for the particular state/territory.

FIGURE 2: STATE/TERRITORY OF RESPONDENTS



The average length of service of teachers in the sample was 10 years and 3 months. The sample was divided into teachers with less than (or equal to) 3 years service and those with more than 3 years service. About two-thirds of the sample were full-time teachers and about one-third were full-time senior teachers or administrators with teaching duties. The current job of each respondent is shown in Figure 3.

FIGURE 3: CURRENT JOB IN TAFE

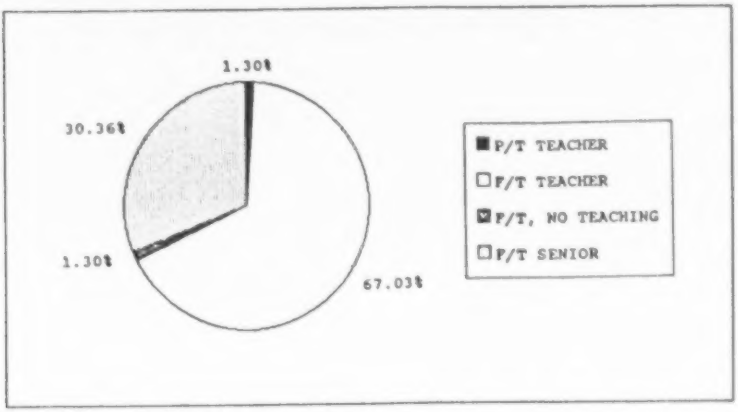
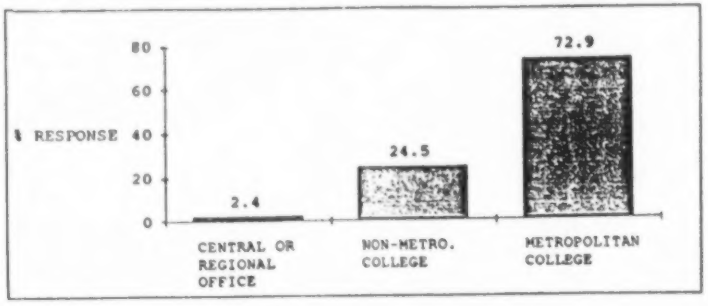


Figure 4 illustrates the workplace location of respondents to the questionnaire. For most states, we were able to ascertain the number of teachers working in metropolitan and non-metropolitan colleges. In those states/territories the distribution of questionnaires reflected the number of teachers working in a metropolitan or non-metropolitan location.

FIGURE 4: WORKPLACE LOCATION OF RESPONDENTS



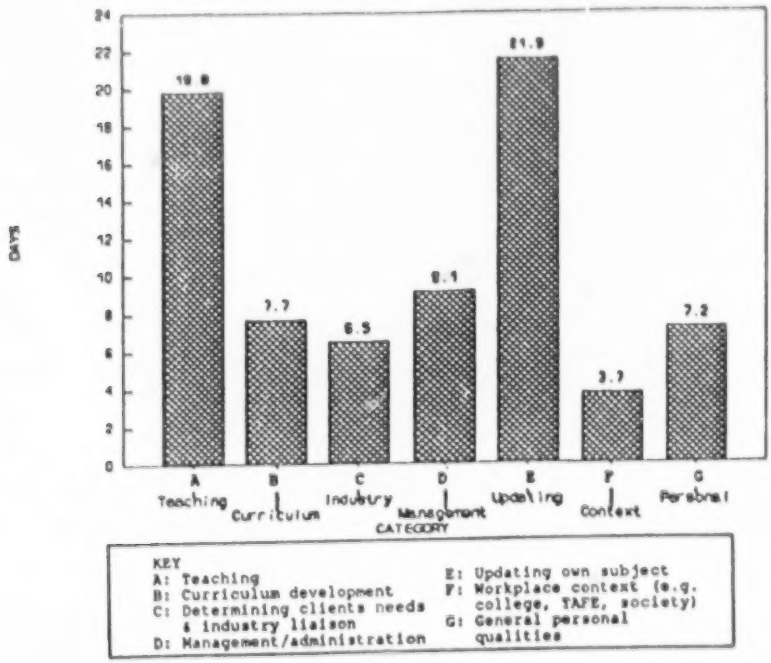
Most full-time TAFE teachers have completed teacher education courses, the most frequent being the diploma of teaching, as shown below.

TEACHER EDUCATION COURSES COMPLETED
(Teachers may have undertaken more than one course)

COURSE	NOT UNDERTAKEN N	%	PARTLY COMPLETED N	%	COMPLETED N	%
Teaching induction	403	74.2	2	0.4	138	25.4
Certificate	445	82.0	4	0.7	94	17.3
Diploma	222	40.9	38	7.0	283	52.1
Graduate diploma	385	70.9	23	4.2	135	24.9
Bachelor's degree	399	73.5	35	6.4	109	20.1
Higher degree	512	94.3	20	3.7	11	2.0
Other	479	88.2	7	1.3	57	10.5

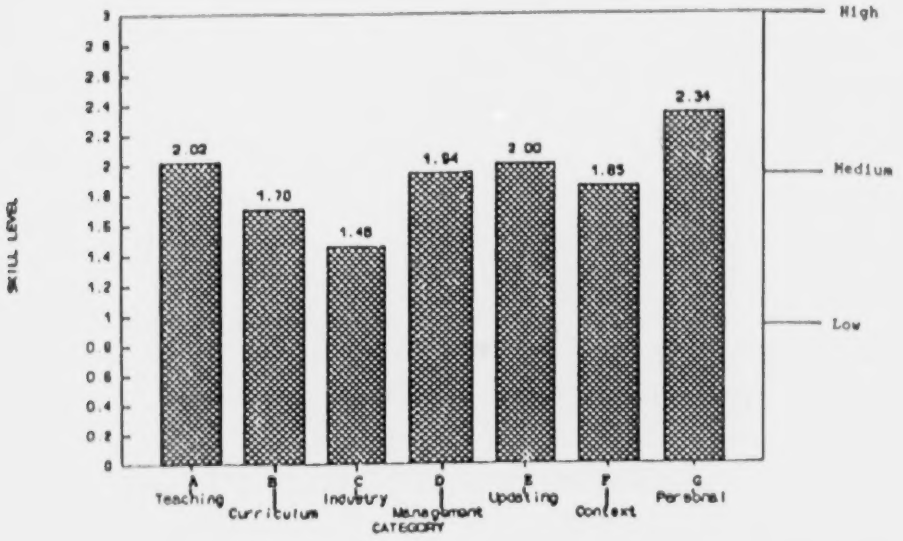
Teachers were asked what total staff development they had done during the past three years. Figure 5 shows the activity breakdown. In answering this question, many teachers interpreted 'staff development' as any activity other than teaching or administration.

FIGURE 5: STAFF DEVELOPMENT OF RESPONDENTS



The questionnaire completed by teachers asked them to assess their own skill levels under seven main groups. Figure 6 shows the average for each group. An average of 1 is low and of 3 is high.

FIGURE 6: CURRENT SKILL AVERAGES



The ten highest current skill levels were recorded for the following skills:

Have ability to interpret the syllabus
Plan a lesson
Create a positive learning environment
Work with groups of students
Have student supervision skills
Advise students on progress
Have pride and confidence in presentation skills
Work co-operatively with others
Be open to new ideas
Take responsibility for your work.

The ten lowest current skill levels were recorded for the following skills:

Use computer assisted learning (CAL)
Use interactive videodisc technology
Teach non-English speaking groups of students
Teach Aboriginals
Motivate external/distance education students
Develop curricula providing opportunities for students to select their own way of learning
Undertake skills audits of organisations

Undertake job re-design
Know the needs of overseas students
Translate TAFE policies into industry negotiations.

Remember - these are the teachers' opinions of themselves. It is interesting to note that most of the ten skills with the highest current skills levels are inter-personal and attitudinal skills. Most of the ten lowest rating skills are technical.

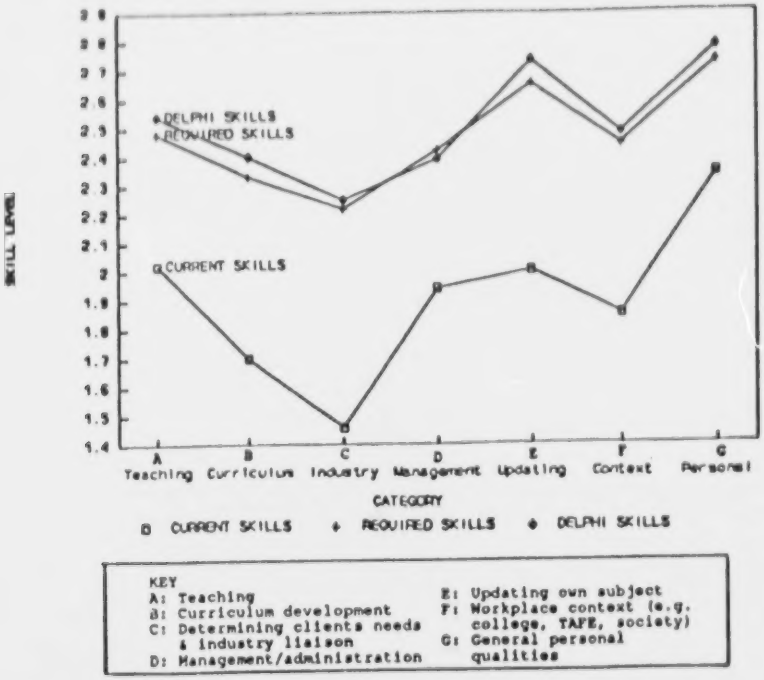
DELPHI SURVEY

The Delphi survey was concerned with skills required for the 1990s. There were two rounds of the Delphi survey. Round one used an open-ended questionnaire and round two used more 'objective' questions.

Figure 7 shows results for the questionnaire answered by TAFE teachers and the Delphi survey of TAFE and industry staff. These are current skills (also shown in Figure 6); required skills for the 1990s (from the teacher survey); and required skills for the 1990s from the Delphi survey (Delphi skills). A score of 3 is high, 2 is medium and 1 is low.

A striking feature of Figure 7 is the close agreement of the Delphi survey results and the teacher survey results.

FIGURE 7: AVERAGES FROM DELPHI AND QUESTIONNAIRE



KEY
A: Teaching
B: Curriculum development
C: Determining clients needs & industry liaison
D: Management/administration
E: Updating own subject
F: Workplace context (e.g. college, TAFE, society)
G: General personal qualities

Of the 178 skills surveyed, 160 showed gaps between now and what was needed for the 1990s (Delphi survey). The ten with the biggest gaps were:

Use computer managed learning (CML)
Use computer assisted learning (CAL)
Use interactive videodisc technology
Teach non-English speaking groups of students
Teach Aboriginals
Motivate external/distance education students
Develop curricula providing opportunities for students to select their own way of learning
Undertake skills audits of organisations
Know about award restructuring in your trade or industry
Translate TAFE policies into industry negotiations.

Seventeen skills had no gaps. These were:

Have ability to interpret the syllabus
Use a range of audio visual aids
Present theory lessons
Teach women
Work with groups of students
Counsel students about courses
Counsel students on personal matters
Have student supervision skills
Advise students on progress
Have pride and confidence in presentation skills
Know the entire curriculum and the place of your subject within it
Have public relations skills
Have an understanding of basic accounting
Have budgeting skills
Have time-tabling skills
Supervise equipment ordering, purchase and storage
Take responsibility for your work.

One current skill level was actually higher than what is required for the 1990s:

Maintain and repair equipment.

COMPARING RESULTS FROM ALL TECHNIQUES

Now let's look at the results from all techniques, comparing the present situation with what is thought to be needed in the 1990s. This will be done for each of the seven skill areas. It is important to recognise that these are the skills needed for TAFE teachers as a whole. All individual teachers cannot be expected to have high levels of expertise in all skills.

Introduction

The use of a range of research instruments for this project was a deliberate device to tap as many perspectives and sources of information as was reasonably possible. The Delphi survey, submissions and interviews, for example, allowed incorporation of the views of numerous key people in Australia's vocational education and training system(s), with particular attention to the future. The available literature also generally focussed on the future from the perspective of researchers, policy developers and others. The survey of TAFE teachers identified both their current skills and those they believe they will need to teach effectively in the 1990s.

While all these sources contribute to the final assessment of the range of skills TAFE teachers are likely to need in the 1990s, their differences in emphasis are important. The available literature has been written principally by researchers, policy developers and analysts, critics and commentators within the vocational training system. It is therefore very much oriented towards change, reform, remedy and new direction. The teacher survey balanced this with extensive information on teachers' own views of their current skills and future needs. The surveys and interviews also involved extensive identification of specific teachers' skills. The literature, by contrast, was generally expressed in more broad brush terms, that is "TAFE will ..." or "TAFE must ...", without necessarily translating the assertions into their impact on the day-to-day activities of TAFE teachers.

Considerable care is needed in comparing the results of the several research techniques, even though these differences in perspective and emphasis have been deliberately built into the research design. In this section, the discussion of the various results, the emphasis will be on discerning the common directions and major differences in the skills teachers have now, and those they will require in the 1990s. Although the results will be discussed in terms of the broad categories of teacher's skills that have been used throughout the project, the general framework has been provided by the Review's terms of reference.

Teaching

Not surprisingly, teaching-related skills feature very prominently throughout the research. They constitute the largest category of skills in the surveys; teaching and classroom-related issues dominate the literature, and were very prominent in the submissions and interviews.

More surprising perhaps is the fact that teachers identified their level of skill in teaching as less than their expertise in general personal qualities, and very close to their level of skill in both management/administration and updating their subject (discussed below). This is explained by the wide variation in expertise among the fifty-eight skills listed in the category, which ranged from high to less than low. There were also significant variations in skill level according to gender (women ranking

their skills higher than men) and length of service (higher for experienced teachers). The priority teachers accorded teaching in their staff development activities was also interesting: although the average time allocated it (almost 20 days in the past three years) exceeded all other categories except subject updating, only half of the teachers surveyed had undertaken continuing education related to teaching.

The most frequently used skills (high usage or approaching it) were traditional teaching skills - such as interpreting the syllabus, lesson planning, assessing student knowledge and skills, presenting theory lessons and encouraging a positive learning environment. Those used least involved three key areas: new teaching technology or equipment (such as computer-managed learning and distance education), several under-represented groups of students (Aboriginal and non-English-speaking background students), and potential new roles (for instance, assessment and certification of on-the-job training). Other skills in the category were employed with medium frequency).

It might be expected that the level of expertise would coincide with the frequency with which the skill was used, but the expertise was generally higher than its use implied it might be, which suggests that teachers have many teaching skills they are not using to the fullest extent. The two exceptions to this (that is, a lower level of skill than its use implied) should be noted in passing: promoting co-operation among students and advising students on progress.

As noted above, there was a significant difference between the skill levels of experienced and beginning teachers. The Delphi respondents also identified a significant difference between beginning and experienced teachers. In their view however most teaching skills that would be required by teachers in the future were required by teachers from the beginning of their careers; they added comparatively few skills such as diverse teaching strategies, diverse groups of students and teaching and assessment. Likewise, the interviews generated a wide range of skills for beginning teachers, with particular emphasis on flexible teaching methods, student needs and the quality of classroom environment. Experienced teachers, according to the interviews, required mainly additional proficiency in counselling and competency-based approaches.

Teaching also featured among the potential areas of specialization for the 1990s identified by the Delphi respondents. Particular specialties listed included teaching non-traditional students, competency-based programs, computer-managed learning, and the technical aspects of distance education.

In terms of the gap between present skills and required skills for teaching in the 1990s, this category of skill shows a smaller gap than most other gaps. In brief, the current level of skill is rated as medium, but according to the research, needs to be lifted to medium to high for the 1990s. The largest gaps occur principally in the more advanced teaching methods such as diagnosis of learning difficulties and teaching several

program/course levels in the one class. There are also gaps in the newer or non-traditional approaches to TAFE teaching, such as competency-based teaching and assessment, self-paced learning, and assessing on-the-job training. Each of these has been highlighted as important in the 1990s in one or more of the various research instruments. The gaps in skills required for teaching under-represented groups varied from considerable (for Aboriginal and non-English-speaking-background students to small (mature age apprentices and women).

The various research instruments employed for this report have resulted in a wealth of information about teaching, as about many other aspects of teaching in TAFE. Only the most salient aspects have been outlined here.

Curriculum Development

The attention accorded curriculum design and development in teacher training programs and some of the relevant literature implies that curriculum-related matters constitute a key component of the TAFE teacher's role. In fact, the involvement of TAFE teachers in curriculum development has varied considerably across the states and territories. The findings of the various research instruments reflect the diversity of approach to curriculum.

The skills teachers currently have emerged principally from the teacher survey. The survey indicated that most teachers use curriculum-related skills infrequently. Those most likely to be used involved developing materials for student use and understanding learning processes. Teachers used these two skills moderately often, other curriculum skills less so. Respondents described the level of curriculum skills possessed by most teachers as no more than medium or moderate, and in some areas as low. In fact, the average level of skill in this category was lower than the average in all other categories bar one (client needs/ industry liaison). Experienced teachers reported significantly higher levels of skill than beginning teachers. Just over half of the respondents had undertaken some staff development in curriculum in the past three years, apparently of quite brief duration.

By contrast with present practice, the submissions, interviews and considerable sections of the literature presented curriculum development skills as an important dimension of TAFE teachers skills in the 1990s. These stressed many common points: the significance of curriculum-related work with industry (such as short fee-for-service courses), the growing trend toward flexible and/or modular design of courses rather than a lock-step approach, the capacity to modify a syllabus where appropriate, and the importance of conveying transferable skills. There is strong agreement that teachers will be at least moderately involved in curriculum issues in the 1990s, and the Delphi survey identified curriculum development, instructional design and program evaluation as potential areas of specialization for teachers.

When current skills and future skills are compared, a large gap is evident in the category of curriculum development. In the teacher survey, the average skill deficit (discrepancy between present and future) for curriculum was the third largest for any of the seven categories of competency. Survey respondents indicated that, on average, curriculum development skills need to be lifted from low/medium to medium/high. This fact is clearly reinforced by the other research techniques.

Three key points require mention in this brief discussion of the results relating to curriculum development. First, there is broad agreement concerning curriculum-related skills and length of teaching experience. Interviewees and Delphi respondents indicated that basic curriculum skills are required for beginning teachers, with more advanced or sophisticated skills being associated with experienced teachers.

Secondly, the teacher survey showed that while curriculum skills used most frequently were those with the highest levels of current skill - to be expected - there was an important exception. Teachers were occupied with developing materials for student use with more than moderate frequency. They described their level of skill, however, as only between low and medium.

Finally, the curriculum areas identified as becoming particularly prominent in the 1990s were precisely those which in the teacher survey showed large skill shortfalls - short course development for or in co-operation with industry, competency-based curriculum and assessment, using student performance objectives as a principle of instructional design, flexible delivery courses, materials for student use and attention to delivery forms appropriate to student needs.

The curriculum role of teachers will clearly need to be addressed in the 1990s.

Determining Client Needs and Industry Liaison

Transformation of the quality and quantity of TAFE-industry relationships dominates the most recent literature, and was also a strong theme in the submissions and interviews. The implications for TAFE teachers are seen as considerable, in particular the acquisition of a range of new skills such as consultancies, skills audits and training needs analyses.

Responses on current levels of skills in the teacher survey provided a stark contrast. The average level of skills in this category was lower than that in any other (closer to low than medium), a consistent finding irrespective of gender, length of service, and workplace location. Four of the ten lowest skill levels related to client needs and industry liaison. In addition, while almost half those surveyed had undertaken some staff development in this area in the past three years (the fourth highest category), the amount of time allocated was lower than all other categories but one (workplace context).

There was however, strong agreement about the extent of the gap between current expertise and that required in the 1990s, as measured by the Delphi and teacher surveys. It was the largest gap among the seven categories of skill. Three of the ten widest gaps identified in the Delphi survey across all categories concerned TAFE-industry activities - notably undertaking skills audits and knowledge of award restructuring. In this light, it is interesting to note the Delphi respondents' emphasis on the area as one for specialization by TAFE teachers in the 1990s: almost half (10 out of 24) potential specializations related to industry-related skills.

There was no difference in the current skill levels in this category of beginning and experienced teachers, unlike categories such as teaching and management/administration. In terms of future skills, however, the Delphi respondents indicated that it was experienced TAFE teachers, rather than those beginning their careers, who would require the larger number of industry liaison skills.

Notwithstanding certain agreements such as the need to increase teachers' level of expertise in this area, there is considerable divergence of opinion. For example, there is much emphasis in the most recent literature, submissions and interviews on industry-related skills. This must be seen against the results of the both the teacher and Delphi surveys, in which the respondents acknowledged a major skill shortfall in this area, but still maintained that the level of skill required in the future to be lower than the level for every other category.

Further development and clarification of the goals of the TAFE sector and the future directions of vocational training will be the key determinants of the significance of these findings.

Management/Administration

The importance of skills in management/administration for teachers has been emphasised in research as well as government funding. Thirty-four skills were identified in this category, making it the second largest - exceeded only by teaching skills. They included both generic skills applicable to all levels of staff and skills related to specific roles or seniority.

This study provides a rare measure of the extent of percieved management and administrative experience among full-time TAFE teachers, and of their perception of their current level of skill and expertise. Teachers reported a moderate level of skill, one exceeded by three other categories (general personal qualities, teaching, and updating their subject). There were differences among the respondents, with higher levels of skill reported by women and by experienced teachers.

The skills teachers used most were general skills, such as arranging their work, workload and time effectively. These were also their areas of highest expertise (medium). Least used, with a corresponding level of expertise were skills related to student selection policies, administering

multiple entry/exit courses and database management.

Experienced teachers in the survey reported higher skill levels than beginning teachers in the category. This finding was reinforced for the future by both the interviews and the Delphi respondents, the latter identifying six skills for beginning teachers for the 1990s, and an additional twenty-one for the experienced - the most significant increase of any of the categories. Beginning teachers needed principally time and work organization skills, computer literacy, planning and mentor skills. The twenty-one skills listed for experienced teachers related to management of financial and human resources, and project management. The Delphi participants also identified management, human resources management and financial planning as potential areas of future specialization. They also regarded computer literacy as a necessary skill for both beginning and experienced teachers.

Both the teacher and Delphi surveys identified management or administration skills as being between medium and high importance for most TAFE teachers in the 1990s. Most important were generic skills, such as managing time, work and work load, and the abilities to manage in a climate of change and to evaluate one's own performance. Least important were business-related skills and database management skills. By contrast, the interviewees and submissions emphasise business skills as well as computing skills. Every skill except one showed a gap between the current level and the level required in the 1990s.

In summary, it appears that teachers undertake considerable administration, and expect this area to require a higher level of skills in the 1990s. While there is a strong element of agreement about the importance of certain, general skills in this category, there is some divergence about the number of other skills both in number and nature.

Updating Own Subject

The vital importance of TAFE teachers being up-to-date in their technical area or vocational specialty has been universally acknowledged in the literature consulted, interviews held and submissions received for this project. This has been a persistent theme in the relevant literature, and applies as much to current requirements as the future.

The interviews reinforced the emphasis on up-dating technical knowledge and practical skills for both beginning and experienced teachers. The teacher survey, however, provided the most detailed indication of the extent to which teachers undertook this activity. Responses indicated that most teachers spent a moderate amount of time up-dating their specialty. Broadly-based skills, notably keeping theoretical and practical competencies up-to-date and coping with change, received most attention. Receiving least attention were quality management and consultation about professional development. The importance teachers accorded this area was reflected in the fact that they used these skills more often than those in any other category except teaching, and that it was the most common

staff development activity.

Respondents reported a medium level of ability to up-date their specialty, slightly more in the broad areas referred to above. Again, only the level of teaching skills exceeded the level in this category.

In terms of the future need for teachers to be up-to-date, both the teachers surveyed and Delphi participants gave skills in this area a high priority. Teachers saw this as being among the ten highest skill levels required in the next decade, and Delphi respondents placed maintenance of technical skills in the same category. Interviewees reinforced this position for both beginning and experienced TAFE teachers.

The literature, submissions and interviews identified as important skills emerging out of industry restructuring, particularly those related to changes in work-place technology and organization. These skills have included occupational health and safety issues, quality management, multi-skilling and familiarity with related subject areas. This is generally reflected in the future skills listed in the Delphi and teacher surveys, although teachers placed less emphasis on some areas such as quality management.

When the current skills of TAFE teachers related to up-dating are compared with the skills required, a considerable gap appears, second only to that in the category related to client needs and industry liaison (although unlike that category, this shows currently a medium level of skill among teachers). Close to a high level in updating their own subject is required for the 1990s, this being confirmed by the surveys, submissions, interviews and literature.

It is important to note that the biggest gaps teachers had were in knowledge of modern quality management principles and broad-based or multi-skilling competencies. Both, it has been argued, are vital for the current restructuring of industry.

It is clear then that updating vocational and practical expertise should be a high priority for TAFE teachers in the 1990s.

Workplace Context

The research instruments elicited various responses under the category of "Workplace Context". From sections of the literature and exploratory interviews they emerged as an important dimension of effective teaching and professionalism. Knowledge of the TAFE system, relevant government policies and the socio-economic context are included in initial teacher training programs for this reason.

The teacher survey showed that teachers did use aspects of this knowledge. They were not the most commonly used skills however: teaching, updating subject, management/administration, and general personal qualities were used more often. Skills under this heading used

most frequently were information specifically relating to operation of the college system, the purpose of TAFE and teaching conditions; least used were strategic planning skills. They assessed their skill level as moderate or slightly less. They spent the least number of staff development days on this area, and only four out of ten had undertaken any staff development related to it in the past three years. There was no notable difference in skill level according to length of service.

Part of the survey and other research instruments focussed particularly on the skills teachers require now. There was general agreement from the interviews on many of the skills currently required: for beginning teachers an introductory knowledge of TAFE and awareness of the critical issues confronting the sector and TAFE's context; for experienced teachers not only this background knowledge but also a more advanced knowledge about TAFE's political and economic context and equal opportunity issues.

As the literature, interviews and submissions strongly suggest that TAFE is on the brink of major and escalating changes, an emphasis might be expected on the extent and importance of workplace-related knowledge in the coming decade. This was supported in the interviews, and both the teacher and Delphi surveys, although relative to other skills required the surveys proposed little change. Interviewees emphasised for beginning teachers not only an understanding of TAFE, but overseas students and the TAFE award structure, and for experienced teachers technological change and networks inside and outside of the TAFE system. The Delphi respondents indicated that the majority of skills in this area were needed by teachers from the beginning of their teaching careers, although they differed somewhat about the specific skills. Overall a level of skill between medium and high was regarded as necessary for the next decade.

It is interesting to compare the emphasis on workplace context with the priority accorded it in recent staff development activities undertaken by respondents to the survey. Teachers spent an average of 3.7 days in the last three years in staff development addressing the workplace context, by far the lowest amount of time allocated any category (the highest being 21.5 days for their subject specialty). Staff development in this area may occur "on the job", but the significant changes already underway in the TAFE system may well require a markedly higher profile for staff development in workplace context skills in the future.

General Personal Qualities

The last of the seven skills categories, general personal skills includes a range of interpersonal, communication and other skills that could be included in or applied to all of the other six categories. They are, in other words, readily transferable to many of the diverse roles and responsibilities of TAFE teachers. Coping with stress is one example, taking responsibility for one's own work another, research another.

The most striking results related to this category are the pervasiveness of the relevant skills through the literature and other research instruments,

and the priority accorded them. The current level of skill in the category among teachers responding to the survey, on average, approaches high and exceeds the level in any other category. This level is unaffected by gender, length of service and workplace location. Many teachers used these skills often; even the least used skills (interviewing and negotiating) were used with just less than moderate frequency.

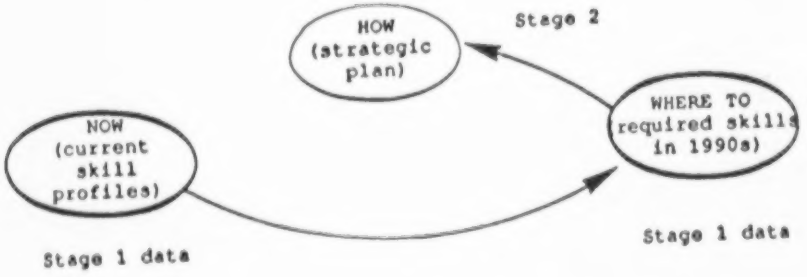
This category showed not only the highest perceived level of current skill, but also the highest level of required skill for the 1990s - the latter being close to high, and just exceeding skills related to subject updating. The Delphi respondents largely reinforced the findings of the teachers' survey.

Length of experience did not affect the current skill level in this category. As far as future skills are concerned, the Delphi responses showed considerable overlap in the competencies required by beginning and experienced teachers, although there was some divergence of opinion on individual skills (e.g. research). Beginning teachers, according to the interviews, require a wide range of personal skills, including problem solving skills, critical thinking skills, the ability to utilise existing skills in a different environment, and the capacity to address the implications of social change. Experienced teachers will need skills, according to the interviews, for academic and action-oriented research, advanced communications skills, and the more responsibility for their professional work. The differences in skills required for beginning teachers on the one hand, and experienced ones on the other, were by no means as pronounced as in other categories such as administration/management and industry liaison.

It is interesting to note that the largest gap between current and required skills occurred in stress management. Stress management was also the one skill in which the current level of skill was less than might have been expected from the extent to which it was used.

WHERE TO FROM HERE?

The second stage of the project has started. What is happening can be summarised as follows:



The most striking findings from the national surveys concern first, the wide range of skills TAFE teachers currently employ, and secondly, the high levels of expertise expected of TAFE teachers in the next decade. This is also supported by the other (qualitative) results. Results consistently show that the current level of skill falls short of that deemed necessary in the 1990s.

These findings have ramifications for the initial and continuing education of TAFE teachers. Information gathered at Stage 1 will be used at Stage 2, together with some of the techniques described on page 1.

Issues to be considered will include incentives and rewards, career alternatives to administration, a strategic model for teacher training which integrates initial training and later re-training, and equipping currently employed teachers with enhanced skills.

If you have any thoughts on HOW, please contact the TAFE National Centre for Research and Development. They will be pleased to hear from you. The full terms of reference may also be obtained from the Centre. Newsletters are also available.

Produced for the project by:

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